



UNITED STATES PATENT AND TRADEMARK OFFICE

cln

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,510	01/18/2005	Jorg Kuchen	KUCHEN ET AL 1 (PCT)	1985
25889	7590	09/10/2007		
WILLIAM COLLARD COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576			EXAMINER HAUPT, KRISTY A	
			ART UNIT	PAPER NUMBER
			2876	
			MAIL DATE	DELIVERY MODE
			09/10/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/521,510

Applicant(s)

KUCHEN ET AL.

Examiner

Kristy A. Haupt

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to Applicant's Amendments filed 15 June 2007.

Claims 1 and 3-26 are pending with claims 1, 19 and 23 being in independent form.

Claim 2 has been cancelled.

Claim Objections

1. Claim 21 is objected to because of the following informalities:

Claim 21 states "...by light having a wavelength of between 450 nm. The use of the word between in line 4 of the claim (between 450 nm) implies there is another range. However, applicant has not provided an ending range. Appropriate correction is required.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3-4, 6-8 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Conversano et al. US 5,256,866.

Conversano teaches:

With respect to claim 1:

Art Unit: 2876

- An image capturing apparatus with an image capturing unit and an image fitting surface wherein the optical axis of the image capturing unit is disposed at an angle α to a normal of the image fitting surface in a region in which the optical axis meets the image fitting surface and in which the normal traverses the image fitting surface (Column 4, Lines 12-29)

With respect to claim 3 and incorporating all limitations of claim 1:

- Wherein the angle α is less than 50 degrees (Column 4, Lines 18-22)

With respect to claim 4 and incorporating all limitations of claim 1:

- Wherein the image capturing unit comprises an angle of sight β of less than 30 degrees (Column 4, Lines 15-20)

With respect to claim 6 and incorporating all limitations of claim 1:

- Wherein the angle α is at least half the size of the angle of sight β of the image capturing unit (Column 4, Lines 15-21)

With respect to claim 7 and incorporating all limitations of claim 1:

- Wherein an optical device is disposed between the image capturing unit and the image fitting surface (Figure 6 teaches light source, #62, is between the CCD, #34, and the fitting surface, #66)

Art Unit: 2876

With respect to claim 8 and incorporating all limitations of claim 1:

- Comprising a lighting device (Figure 6 teaches a light source, #62)

With respect to claim 17 and incorporating all limitations of claim 1:

- Comprising a positioning device (Abstract teaches a scanning window)

3. Claims 19-20 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Slatter et al. EP 0 984 319 A1.

Slatter teaches:

With respect to claim 19:

- Wherein an image capturing unit is held obliquely relative to the display (Figure 3 teaches camera (#20) is at an oblique angle to the sheet of paper (#54))

With respect to claim 20 and incorporating all limitations of claim 19:

- Wherein the display is substantially placed onto an image fitting surface (Figure 3 teaches placing sheet of paper (#54) onto a desk (#58))

Art Unit: 2876

With respect to claim 23, an arrangement consisting of an image capturing unit and of a display:

- The optical axis of the image capturing unit is disposed at an angle α to the normal of the display (Figure 3 teaches optical axis (#22) is at an angle to the normal of the display (#54))

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Conversano et al. US 5,256,866 in view of Fantone et al. US 6,066,857.

Conversano fails to teach:

With respect to claim 5:

- Wherein the image capturing unit comprises a focal length that is more than double, preferably more than four times, the size of the maximum diagonal of an image capturing sensor of the image capturing unit

Art Unit: 2876

However, Fantone teaches:

With respect to claim 5:

- Wherein the image capturing unit comprises a focal length that is more than double, preferably more than four times, the size of the maximum diagonal of an image capturing sensor of the image capturing unit
(Column 4, Lines 33-35 teaches using a lens with an F/# of 5.6)

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Conversano to use a focal length that is more than double the size of the maximum diagonal of a sensor, as taught by Fantone, to increase the imaging area.

6. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Conversano et al. US 5,256,866 in view of Seo US 6,306,095.

Conversano fails to teach:

With respect to claim 9:

- Wherein the lighting device comprises light-emitting diodes as the light-emitting means

With respect to claim 10:

- Wherein the light-emitting means are disposed in immediate proximity to the image capturing unit

Art Unit: 2876

With respect to claim 11:

- Wherein the lighting device comprises colored light-emitting means

However, Seo teaches:

With respect to claim 9:

- Wherein the lighting device comprises light-emitting diodes as the light-emitting means (Column 4, Lines 33-35)

With respect to claim 10:

- Wherein the light-emitting means are disposed in immediate proximity to the image capturing unit (Figure 4 teaches image capture unit (4) is in immediate proximity to led (41))

With respect to claim 11:

- Wherein the lighting device comprises colored light-emitting means (Column 4, Lines 33-35 teach using visible light LED's as the light source where it is common knowledge that visible light LED's come in a variety of colors)

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Conversano to use LED's as the light emitting means, as

Art Unit: 2876

taught by Seo, as they are inexpensive, commercially available and well-known sources of light for image capturing apparatus'.

7. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Conversano et al. US 5,256,866 in view of Reed et al. US 2002/0168085 A1.

Conversano fails to teach:

With respect to claim 12:

- Comprising at least one optical screen that is disposed outside of a light path of the image capturing unit

With respect to claim 13:

- Wherein the optical screen is disposed between the image fitting surface and the image capturing unit and/or a lighting device

With respect to claim 14:

- Wherein the optical screen comprises a light-absorbing surface and the light-absorbing surface is turned toward the image fitting surface

However, Reed teaches:

With respect to claim 12:

- Comprising at least one optical screen that is disposed outside of a light path of the image capturing unit (Page 4, Paragraph 0053)

Art Unit: 2876

With respect to claim 13:

- Wherein the optical screen is disposed between the image fitting surface and the image capturing unit and/or a lighting device (Page 4, Paragraph 0053)

With respect to claim 14:

- Wherein the optical screen comprises a light-absorbing surface and the light-absorbing surface is turned toward the image fitting surface (Page 4, Paragraph 0053)

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Conversano to have an optical screen outside of a light path of the image capturing unit, as taught by Reed, to shield the camera from visible light (Page 4, Paragraph 0053).

8. Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Conversano et al. US 5,256,866 in view of Slatter et al. EP 0 984 319 A1.

Conversano fails to teach:

With respect to claim 15:

- Comprising a housing, portions of which comprise a translucent material

With respect to claim 16:

- Wherein the translucent material is a reflection-reducing material

However, Slatter teaches:

With respect to claim 15:

- Comprising a housing, portions of which comprise a translucent material (Figure 2 teaches an objective lens (#21) where light can exit the camera body (#19))

With respect to claim 16:

- Wherein the translucent material is a reflection-reducing material (Figure 2 teaches an objective lens (#21) where light can exit the camera body (#19))

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Conversano to use a translucent material such as an objective lens, as taught by Slatter, to reduce reflection being sent to the image capture device.

9. Claims 18 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Conversano et al. US 5,256,866 in view of Honda US 4,950,072.

Art Unit: 2876

Conversano fails to teach:

With respect to claim 18:

- Wherein the positioning device comprises a protection means, preferably a padding, that protects an object placed on the positioning device from damage and that moreover shields, together with the object, the image capturing unit from ambient light

With respect to claim 24:

- For capturing an image from a display, more specifically from an LCD display or from a specular reflecting surface

With respect to claim 25:

- For capturing an image from a surface that is covered by at least on transparent layer

With respect to claim 26:

- For reading an optical code that is preferably displayed on a display or on a specular reflecting surface

However, Honda teaches:

With respect to claim 18:

- Wherein the positioning device comprises a protection means, preferably a padding, that protects an object placed on the positioning device from damage and that moreover shields, together with the object, the image capturing unit from ambient light (Abstract and Column 3, Line 67 – Column 4, Line 1)

With respect to claim 24:

- For capturing an image from a display, more specifically from an LCD display or from a specular reflecting surface (Abstract)

With respect to claim 25:

- For capturing an image from a surface that is covered by at least on transparent layer (Column 2, Lines 22-28)

With respect to claim 26:

- For reading an optical code that is preferably displayed on a display or on a specular reflecting surface (Abstract)

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Conversano to protect the positioning device, as taught by Honda, to cover the liquid crystal panels to prevent damage (Abstract).

10. Claims 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slatter et al. EP 0 984 319 A1 in view of Seo US 6,036,095.

Slatter fails to teach:

With respect to claim 21:

- Wherein the display is illuminated during image capturing by light having a wavelength of between 450 nm

With respect to claim 22:

- Wherein the display is lit by light beams of a lighting device and the light beams travel substantially along a light path of the image capturing unit

However, Seo teaches:

With respect to claim 21 and incorporating all limitations of claim 19:

- Wherein the display is illuminated during image capturing by light having a wavelength of between 450 nm (Column 4, Lines 33-35 teach using visible light LED's as the light source, where blue LED's have wavelengths between 430 and 470 nm)

With respect to claim 22 and incorporating all limitations of claim 19:

- Wherein the display is lit by light beams of a lighting device and the light beams travel substantially along a light path of the image capturing unit (Figure 2 teaches light sources (41 and 91) that travel substantially along a light path of the image capturing unit (4))

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Slatter to use light in the visible wavelength spectrum, as taught by Seo, to illuminate the reading area (Column 4, Lines 16-20).

Response to Arguments

11. Applicant's arguments with respect to claim 1 has been considered but are moot in view of the new ground(s) of rejection.

12. Applicant's arguments filed 15 June 2007 with respect to independent claims 19 and 23 have been fully considered but they are not persuasive. Applicant argues that Slatter EP 0 984 319 A1 does not have an optical axis that passes from the image capturing unit through the image fitting surface to the image and the optical axis is inclined relative to a normal of the image fitting surface in a region in which the optical axis traverses the image fitting surface. Independent claim 19 does even require an optical axis, only that the image-capturing unit is oblique to the display. Independent claim 23 requires an optical axis but only that it is at an angle to the normal of the

Art Unit: 2876

display. It does not require a region in which the optical axis traverses the image fitting surface.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristy A. Haupt whose telephone number is (571) 272-8545. The examiner can normally be reached on M-F 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

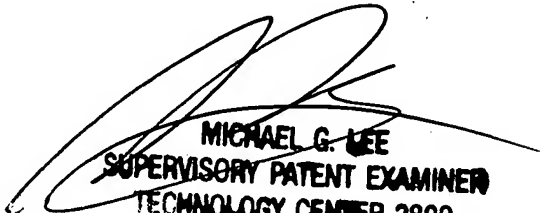
Art Unit: 2876

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

9/3/07

KAH

KAH


MICHAEL G. LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800